

IN THE CLAIMS

Please amend claims 1, 23 and 28-29 as follows:

1. (Currently Amended) A system, comprising:

at least one light source in a movable hand-held device,
the movable hand-held device being capable of sending control
signals to a remotely controllable device;

at least one light detector that detects light from said
light source; and

a control unit that receives image data from the at least
one light detector,

wherein the control unit detects the position of the
hand-held device relative to a position of a user of the movable
hand-held device in at least two-dimensions from the image data
from the at least one light detector and translates the position to
control a feature on a display, wherein a change of said feature
corresponds to a movement of the movable hand-held device relative
to the user.

2. (Original) The system of claim 1, wherein the at least one
light detector is a digital camera.

1 3.(Original) The system of claim 2, wherein the digital
2 camera captures a sequence of digital images that include the light
3 emitted by the hand-held device, the sequence of digital images
4 transmitted to the control unit.

1 4.(Original) The system of claim 3, wherein the control unit
2 comprises an image detection algorithm that detects the image of
3 the light of the hand-held device in the sequence of images
4 transmitted from the digital camera.

1 5.(Original) The system of claim 4, wherein the control unit
2 maps a position of the detected hand-held device in the images to a
3 display space for the display.

1 6.(Original) The system as in claim 5, wherein the mapped
2 position in the display space controls the movement of a feature in
3 the display space.

1 7.(Original) The system as in Claim 6, wherein the feature in
2 the display space is a cursor.

1 8.(Original) The system of claim 3, wherein the captured
2 images are processed by the control unit for at least one other
3 purpose.

1 9.(Original) The system of claim 8, wherein the at least one
2 other purpose is selected from the group of teleconferencing, image
3 transmission, and image recognition.

1 10.(Original) The system of claim 1, wherein said at least
2 one light source is an LED.

1 11.(Original) The system of claim 1, wherein the at least one
2 light detector comprises two digital cameras.

1 12.(Original) The system of claim 11, wherein the two digital
2 camera each capture a sequence of digital images that include the
3 light emitted by the hand-held device, each sequence of digital
4 images transmitted by each camera to the control unit.

1 13.(Original) The system of claim 12, wherein the control
2 unit comprises an image detection algorithm that detects the image

3 of the light of the hand-held device in each sequence of images
4 transmitted from the two digital cameras.

1 14.(Original) The system of Claim 13, wherein the control
2 unit comprises a depth detection algorithm that uses the position
3 of the light in the images received from each of the two cameras to
4 determine a depth parameter from a change in a depth position of
5 the hand-held device.

1 15.(Original) The system of claim 14, wherein the control
2 unit maps a position of the detected hand-held device in at least
3 one of the images from one of the cameras and the depth parameter
4 to a 3D rendering in a display space for the display.

1 16.(Original) The system as in claim 15, wherein the mapped
2 position in the display space controls the movement of a feature in
3 the 3D rendering in the display space.

1 17.(Original) The system of claim 1, wherein the at least one
2 light detector is at least one digital camera and the hand-held
3 device comprises two light sources.

1 18.(Original) The system of claim 17, wherein the digital
2 camera captures a sequence of digital images that include the light
3 from the two light sources of the hand-held device, the sequence of
4 digital images transmitted to the control unit.

1 19.(Original) The system of claim 18, wherein the control
2 unit comprises an image detection algorithm that detects the image
3 of the two light sources of the hand-held device in the sequence of
4 images transmitted from the digital camera.

1 20.(Original) The system of claim 19, wherein the control
2 unit determines at least one angular aspect of the hand-held device
3 from the images of the two light sources.

1 21.(Original) The system of claim 20, wherein the control
2 unit maps the at least one angular aspect of the hand-held device
3 as detected in the images to a display space for the display.

1 22.(Original) The system of claim 1, wherein the light source
2 emits at a wavelength falls that falls within the visible and
3 infrared light spectrum.

1 23. (Currently Amended) A system comprising:

2 two or more movable hand-held devices, each hand-held
3 device comprising at least one light source at least one of the two
4 or more movable hand-held device being capable of sending control
5 signals to a remotely controllable device,

6 at least one light detector detecting light from the at
7 least one light source of each of the two or more hand-held devices

8 a control unit that receives image data from the at least
9 one light detector,

10 wherein the control unit detects the positions for
11 each of the two or more movable hand-held devices in at least two
12 dimensions from the image data from the at least one light detector
13 and translates the positions for each of the two or more movable
14 hand-held devices to separately control two or more respective

15 features on a display, and wherein a change of at least one of said
16 features corresponds to a movement of at least one of said two or
17 more movable hand-held devices relative to a user of said at least
18 one of said two or more movable hand-held devices.

1 24. (Original) The system of claim 23, wherein the at least

2 one light source of the two or more hand-held devices each turn on

3 and off at a flashing frequency and emit light at a flashing
4 wavelength.

1 25.(Original) The system of claim 24, wherein the flashing
2 frequencies of the at least one light source of the two or more
3 hand-held devices are different.

1 26.(Previously presented) The system of claim 24, wherein the
2 wavelengths of the at least one light source of the two or more
3 hand-held devices are different.

1 27.(Original) The system of claim 26, wherein the flashing
2 wavelength falls within the visible and infrared light spectrum.

1 28.(Currently Amended) A system, comprising:
2 at least one light source in a movable hand-held device,
3 the movable hand-held device being capable of sending control
4 signals to a remotely controllable device;
5 at least one light detector that detects light from said
6 light source; and
7 a control unit that receives image data from the at least
8 one light detector,

9 wherein the control unit detects the position of the
10 hand-held device relative to the position of a user carrying the
11 hand-held device in at least two-dimensions from the image data
12 from the at least one light detector and translates the position to
13 control a feature on a display so that a change of said feature
14 corresponds to a movement of the movable hand-held device relative
15 to the user.

1 29. (Currently Amended) A system, comprising:
2 at least one light source in a movable hand-held device,
3 the movable hand-held device being capable of sending control
4 signals to a remotely controllable device;
5 at least one light detector that detects light from said
6 light source; and
7 a control unit that receives image data from the at least
8 one light detector,
9 wherein the control unit detects the position of the
10 hand-held device in three dimensions from the image data from the
11 at least one light detector and translates the position to control
12 a feature on a display, and wherein a change of said feature
13 corresponds to a movement of the movable hand-held device relative
14 to a user of the hand-held device.